Amendments to the Claims:

1. (currently amended) A mass flow meter (MFM) structure, comprising:

a conduit for conducting a fluid flow, and

at least four mutually spaced temperature sensors disposed to sense the temperature of a fluid flowing within said conduit, said sensors connected in a 4-sensor bridge circuit to sense the mass flow rate of a fluid flowing through said conduit,

wherein said sensors are mounted to said conduit by respective first layers on said sensors and conduit of a material selected from the group comprising TiW and Ni, and respective second layers on said sensors and conduit of Au, with said sensor and conduit second layers bonded to each other.

2. (original) The MFM structure of claim 1, wherein said sensors are discrete and are distributed symmetrically with respect to said conduit.

3. (original) The MFM structure of claim 1, said sensors comprising semiconductor chips.

4. (original) The MFM structure of claim 3, said sensors comprising SiC chips.

5. (original) The MFM structure of claim 4, further comprising a SiC oxide interfacing between said SiC chips and said conduit.

6. (original) The MFM structure of claim 3, said sensors comprising silicon chips.

7. (original) The MFM structure of claim 6, further comprising a silicon oxide interfacing between said silicon chips and said conduit.

8. (original) The MFM structure of claim 1, further comprising an electrically insulative film enclosing said sensors, and a circuit on the exterior of said film and extending through the film to contact said sensors.

9. (canceled)

10. (currently amended) The MFM structure of claim ~~9~~ 1, wherein said sensors comprise semiconductor chips, further comprising an oxide of said semiconductor interfacing between said sensors and said sensor first layers.

11. (original) The MFM structure of claim 1, said sensors comprising thin film tungsten layers on respective AlN substrates.

12. (original) The MFM structure of claim 1, said sensors comprising a pair of upstream sensors distributed symmetrically with respect to said conduit at an upstream location, and a pair of downstream sensors distributed symmetrically with respect to said conduit at a downstream location.

13. (original) The MFM structure of claim 12, said bridge circuit including extended leads between said upstream and downstream sensors long enough to be substantially non-thermoconductive.

14. (original) The MFM structure of claim 1, wherein said sensors include respective AlN substrates that are mounted to said conduit.

15. (original) The MFM structure of claim 1, further comprising electronic circuitry for actuating said sensors and determining the mass flow rate of a fluid flowing through said conduit from said sensors.

16. (original) The MFM structure of claim 15, wherein said electronic circuitry operates without amplification of the sensor outputs.

17. (original) The MFM structure of claim 15, further comprising a control valve governing the fluid flow through said conduit under the control of said circuitry.

18. (original) The MFM structure of claim 1, wherein said sensors are mounted inside said conduit on protective shields and protected from the environment within the conduit by said shields.

19. (currently amended) A mass flow meter (MFM) comprising:

a conduit for conducting a fluid flow,

at least one temperature sensor disposed to sense the temperature of a fluid flowing through said conduit, each sensor comprising an AlN substrate bearing a temperature sensing circuit, and

electronic circuitry for actuating said sensors and determining from said sensors the mass flow rate of a fluid flowing through said conduit,

wherein each said sensor is mounted to said conduit by respective first layers on said sensor and conduit of a material selected from the group comprising TiW and Ni, and respective second layers on said sensor and conduit of Au, with said sensor and conduit second layers bonded to each other.

20. (original) The MFM of claim 19, said temperature sensing circuits comprising respective thin film tungsten layers on said AlN substrates.

21. (original) The MFM of claim 19, wherein each AlN substrate is mounted to the outer surface of said conduit to conduct heat from said conduit to its respective temperature sensing circuit.

22. (original) The MFM of claim 19, further comprising a control valve governing the fluid flow through said conduit under the control of said circuitry.

23. (currently amended) A fluid mass flow meter (MFM), comprising:

a conduit for conducting a fluid flow,

at least one discrete chip-type temperature sensor carried by to said conduit to sense the temperature of a fluid within said conduit, and

electronic circuitry for actuating said at least one sensor and sensing the mass flow rate of a fluid flowing through said conduit from said at least one sensor,

wherein each said sensor is mounted to said conduit by respective layers on said sensor and conduit of a material selected from the group comprising TiW and Ni, and

respective second layers on said sensor and said conduit of Au, with said sensor and conduit second layers bonded to each other.

24. (original) The MFM of claim 23, each said sensor comprising a semiconductor chip.

25. (original) The MFM of claim 24, each said semiconductor chip comprising a SiC chip.

26. (original) The MFM of claim 25, further comprising a SiC oxide interfacing between each SiC chip and said conduit.

27. (original) The MFM of claim 24, each said semiconductor chip comprising a silicon chip.

28. (original) The MFM of claim 27, further comprising a silicon oxide interfacing between each silicon chip and said conduit.

29. (original) The MFM of claim 23, each said sensor comprising a thin film tungsten layer on a respective AlN substrate.

30. (original) The MFM of claim 23, further comprising an electrically insulative film enclosing each said sensor, and a circuit on the other side of said film and extending through the film to contact each sensor.

31. (canceled)

32. (currently amended) The MFM of claim ~~31~~ 23, wherein each said sensor comprises a respective semiconductor chip, further comprising an oxide of said semiconductor interfacing between said sensor and said first sensor layer.

33. (original) The MFM of claim 23, wherein said electric circuitry senses the temperature within said conduit as a function of the sensor resistance.

34. (original) The MFM of claim 23, wherein each said sensor is mounted to the outer surface of said conduit in thermal communication with a fluid flowing through the conduit.

35. (original) The MFM of claim 23, wherein each said sensor is mounted within a respective opening in a wall of said conduit.

36. (original) The MFM of claim 23, wherein each said sensor is mounted to an inner surface of said conduit.

37. (original) The MFM of claim 23, wherein each said sensor is mounted inside said conduit on a protective shield and protected by said shield from the environment within said conduit.

38. (original) The MFM of claim 23, wherein each said sensor projects into the interior of said conduit.

39. (original) The MFM of claim 23, said at least one temperature sensor comprising a plurality of temperature sensors that are symmetrically arranged with respect to said conduit.

40. (original) The MFM of claim 23, said at least one temperature sensor comprising a plurality of temperature sensors that are electrically connected in a bridge circuit.

41. (original) The MFM of claim 40, said bridge circuit incorporating a pair of upstream temperature sensors and a pair of downstream temperature sensors.

42. (original) The MFM of claim 23, further comprising a control valve governing the fluid flow through said conduit under the control of said circuitry.

43. (currently amended) A method of forming a temperature sensor, comprising:

bonding at least one discrete chip-type temperature sensor to a conduit by respective first layers on each said sensor and said conduit of a material selected from the group comprising TiW and N, and respective second layers on each said sensor and said conduit of Au, with said sensor and conduit second layers bonded to each other, and

electrically connecting each said sensor to sense the temperature of a fluid flowing through said conduit.

44. (original) The method of claim 43, wherein each said temperature sensor is bonded to said conduit through a thermally conductive insulator.

45. (original) The method of claim 43, wherein multiple temperature sensors are bonded to said conduit at symmetrical locations with respect to said conduit.

46. (original) The method of claim 45, wherein a pair of upstream and a pair of downstream temperature sensors are bonded to said conduit, with each pair symmetrically arranged with respect to said conduit.

47. (original) The method of claim 46, said electrically connecting step comprising connecting said upstream and downstream temperature sensors in a 4 sensor bridge network.

48. (original) The method of claim 43, further comprising using said sensed temperature as an indication of the mass flow rate of a fluid flowing through said conduit, and controlling said fluid flow rate as a function of the indicated mass flow rate.